

Translation

PATENT COOPERATION TREATY

PCT/EP2003/008730



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference S/Li-EckartA	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/008730	International filing date (<i>day/month/year</i>) 07 August 2003 (07.08.2003)	Priority date (<i>day/month/year</i>) 20 August 2002 (20.08.2002)
International Patent Classification (IPC) or national classification and IPC C09C 1/66		
Applicant ECKART GMBH & CO. KG		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>1</u> sheets.
3.	This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 12 December 2003 (12.12.2003)	Date of completion of this report 22 October 2004 (22.10.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/008730

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-11, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages 2-6, 8-12, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages 1, 7, filed with the letter of 18 June 2004 (18.06.2004)
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/08730

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents:

D1: EP-A-0 499 817
D2: WPI & JP 60 229966 A
D3: WPI & JP 02 197502 A
D4: PAJ & JP 09 165544 A
D5: US-A-4 321 087 (cited in the application)

2. Novelty (PCT Article 33(1) and (2))

D1 (EP-A-0499817) discloses copper alloy flake pigments. The use of a copper-aluminium alloy as claimed in claim 1 is not disclosed, and it is not stated by what process the pigments are obtained. The subject matter of independent product claim 1 and of dependent claims 2 to 6 can therefore be considered novel.

D5 (US-A-4321087) discloses a vacuum deposition process as in the present application for producing aluminium or ... copper flakes. The process for producing alloy flakes is not described. The subject matter of independent process claim 7 and of dependent claims 8 to 12 can therefore be considered novel.

3. Inventive step (PCT Article 33(1) and (3))

The problem addressed by the present invention is that of producing a bright gold metallic-effect pigment with plane-parallel surfaces and thin uniform particles. The problem is solved by metal flakes composed of a copper-aluminium alloy as defined in claim 1, and by the deposition process defined in claim 7. The closest prior art documents are D1 for the product and D5 for the process.

None of the cited documents explicitly disclose the deposition of an alloy in the form of flakes by the process disclosed in (for example) D5. There is nothing in the prior art to suggest modifying the deposition process of D5 so as to obtain flakes composed of an alloy. On the contrary, a person skilled in the art would reject the idea of attempting such a process because the melting points, boiling points and vapour pressures of copper and aluminium are so different that it is not obvious that they can be vaporised together. Surprisingly, the applicant has succeeded in carrying out just such a simultaneous deposition process. The subject matter of claims 1 to 12 can therefore be considered inventive.